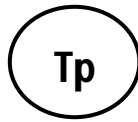


4.16 Topsoiling



Definition

Stripping off the more fertile topsoil, storing it, then spreading it over the disturbed area after completion of construction activities.

Purpose

Topsoil is used to provide a suitable soil medium for vegetative growth on areas where other measures will not produce or maintain a desirable stand.



Conditions

This practice is recommended for sites of 2:1 or flatter slopes where:

- the texture of the exposed subsoil or parent material is not suitable to produce adequate vegetative growth,
- the soil material is so shallow that the rooting zone is not deep enough to support plants with continuing supplies of moisture and food, and
- the soil to be vegetated contains material toxic to plant growth.

Specifications

Materials

Topsoil should be friable and loamy, free of debris, objectionable weeds, and stones and should contain no toxic substance that may be harmful to plant growth. A pH range of 5.0 to 7.5 is acceptable. Soluble salts should not exceed 500 parts per million (ppm).

Testing

Field exploration should be made to determine whether the quantity or quality of surface soil justifies stripping.

Stripping

Stripping should be confined to the immediate construction area. A 4- to 6-inch stripping depth is common, but may vary depending on the particular soil.

Topsoil pH

If pH value is less than 6.0, lime shall be applied and incorporated with the topsoil to adjust the pH to 6.5 or higher. Topsoil containing soluble salts greater than 500 ppm shall not be used.

Stockpiles

The location of topsoil stockpiles should not obstruct natural drainage or cause off-site environmental damage. Stockpiles may be vegetated in accordance with the appropriate standards and specifications.

Site Preparation (Where Topsoil is to be Added)

Topsoiling

When topsoiling, maintain needed erosion control practices, such as diversions, grade stabilization structures, beams, dikes, level spreaders, waterways, and sediment basins.

Grading

Grades on the areas to be topsoiled that have been previously established.

Liming

Where the pH of the subsoil is 5.0 or less or composed of heavy clays, agricultural limestone shall be spread at the rate of 100 pounds per 1,000 square feet. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure.

Bonding

Use of the following methods to ensure bonding of topsoil and subsoil:

1. **Tilling.** After the areas to be topsoiled have been brought to grade, and immediately prior to dumping and spreading the topsoil, the subgrade shall be loosened by disking or scarifying to a depth of at least 3 inches to permit bonding of the topsoil to the subsoil.
2. **Tracking.** Passing a bulldozer over the entire surface area of the slope to leave tracks vertically or diagonally.

Applying Topsoil

Topsoil should be handled only when it is dry enough to work without damaging soil structure.

A uniform application of 5 inches (unsettled) is recommended, but may be adjusted at the discretion of the engineer or landscape architect.

Cubic Yards of Topsoil Required for Application to Various Depths		
Depth (inches)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806